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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,793	12/08/2000	Hiroyuki Okuwaki	200616US2	1436
22850	7590	01/06/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			SCOTT JR, LEON	
		ART UNIT		PAPER NUMBER
				2828

DATE MAILED: 01/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/731,793	OKUWAKI ET AL.
	Examiner	Art Unit
	Leon Scott, Jr.	2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-14 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-14 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
 a) The translation of the foreign language provisional application has been received.  
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

1) Notice of References Cited (PTO-892)                    4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                    5) Notice of Informal Patent Application (PTO-152)  
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.6.                    6) Other: \_\_\_\_\_



**The following is a quotation of the second paragraph of 35 U.S.C. 112:**

**The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

**Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**In line 2 of claim 1 since it is not clear within the context of claim language how the multi-beam laser diode is capable of emitting multi-laser beams from a plurality of light emitting points, what plurality of light emitting points; claim 1 is indefinite and incomplete. In line 5 of claim 1 it is not clear how the stem formed with the cutout portion functions in the device as a whole, claim 1 is indefinite and incomplete. In line 5 of claim 1 it is not clear how the multi-beam source unit is designed to be set to an optical scanning system, how is set; claim 1 is indefinite and incomplete. In line 6 the recitation on the assumption renders the claim indefinite since one is not entitled to properly claim assumptions. In line 7 of claim 1 it is not clear within the context of claim language what constitutes a standard design line; claim 1 is indefinite and incomplete. Further in lines 6-8 of claim 1 when are the are the plural light emitting points present on virtual straight line defined by said cutout portion; claim 1 is indefinite and incomplete. In line 9 of claim 1 it is not clear what constitutes an arranged state of the light emitting points; claim 1 is indefinite and incomplete. In lines 9 and 10 of claim 1 it is not clear how one**

measures an arranged state *on the basis* of beam spots on an image surface; claim 1 is indefinite and incomplete. Claim 1 recites both structure and method steps, thus it is not clear what applicant is relying upon to carry the claims (i.e. claims 1-14) method or apparatus; claims 1-14 are indefinite and incomplete.. How in lines 10 and 11 of claim 1 do beam spots on an image surface correspond to an image recording surface; claim 1 is indefinite and incomplete. In line 2 of claim 2 a *convex portion* of what; claim 2 is indefinite and incomplete. In line 3 of claim 2 *for positioning* what formed in the stem; claim 2 is indefinite and incomplete. Claim 3 recites desired results while failing to recite the method steps necessary to provide those results, for example it is not clear how the arrangement direction of the light emitting points is determined; claim 3 is indefinite and incomplete. The recitation *on the basis of* in line 4 of claim 3 is indefinite. Further in all of claims 2 and 4 it is not clear within the context of claim language how the multi-beam source is adjusted; claims 2-4 are indefinite and incomplete. Lines 2-5 of claim 4 express a desired result while failing to recite the method steps necessary to provide that result. Further in line 3 of claim 4 how are the measured relative portions of beam spots achieved; claim 4 is indefinite and incomplete. In line 4 of claim 4 it is not clear how one determines an approximate straight line; claim 4 is indefinite and incomplete. In line 5 of claim 4 the recitation *can be* is indefinite. Claim 5 is indefinite and incomplete. In line 3 of claim 6 what steps achieve *relative portions* of the beam spots; claim 6 is indefinite and incomplete. The recitations: *the horizontal scanning direction of beam spots* in line 3 of claim 6; *the vertical scanning direction* in line 3 of claim 7; *the centroid position of each the beam points* in line 3 of claim 13; and *the value of the CCD pixel output* in line 3 of claim all lack a clear antecedent basis.

In lines 3 and 6 of claim 6 what *relative positions* ,claim 6 is indefinite and incomplete In lines 4 and 5 of claim 6 in the recitation *in terms of relative angle portions* what relative angle portions; claim 6 is indefinite and incomplete. In lines 5 and 6 of claim 6 it is not clear what method steps achieve *the maximum*

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**deviation in the scanning direction; claim 6 is indefinite and incomplete.** In line 10 of claim 6 how many times are these **operations repeated; claim 6 is indefinite and incomplete.** In lines 10 and 11 of claim 6 it is not clear how the repeated operations produces an **arranged state**, what constitutes an **arranged state** of light emitting points; claim 6 is indefinite and incomplete. Further it is also not clear in lines 10-13 how these repeated operations produce an **arrangement direction of the light emitting points**, claim 6 is indefinite and incomplete. In lines 12 and 13 of claim 6 the smallest maximum deviation of **what**, claim 6 is indefinite and incomplete. In line 3 of claim 7 **the vertical scanning direction** of **what**; claim 7 is indefinite and incomplete. In line 7 of claim 8 the recitation **to be confronted with** (when ?) is indefinite and incomplete. In lines 7 and 8 of claim 8 **how is the horizontal scanning direction reference plane formed in the body portion of the image forming apparatus**, claim 8 is indefinite and incomplete. In line 11 of claim 8 **pressing the stem** where or how, further why is the stem pressed; claim 8 is indefinite and incomplete. In line 2 of claim 9 when is the base member adapted to be to be positioned and fixed, fixed **how**; claim 8 is indefinite and incomplete. The recitation **capable of** in line 4 of claim 9 and in line 2 if claim 14 is indefinite. In lines 6 and 7 of claim 9 it is not clear how **measuring an arrangement direction** is achieved; claim 9 is indefinite and incomplete. In line 7 of claim 9 the recitation **on the basis of** is indefinite and incomplete. It is not clear in lines 13 and 14 of claim 9 of what import is the fact that the front side focal position of the focusing lens is substantially coincident with a rear side focal position of the of the collimating lens, applicant has not demonstrated how this aspect of the device connectively related to the device as a whole; claim 9 is indefinite and incomplete. In line 4 of claim 10 as a **pixel area of** what; claim 10 is indefinite and incomplete/ In lines 1 and 2 of claim 11 the recitation **controlling in such a manner** is indefinite, controlling **what**; claim 11 is indefinite and incomplete. In line 3 of claim 13 performing **what calculations**; claim 13 is indefinite and incomplete. In lines 20 and 21 of claim 14 what standard line

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**direction; claim 14 is indefinite and incomplete. Further the recitation *the standard line direction* lacks a clear antecedent basis.**

**Mooradian et al (5,13,002) is cited for its teaching of an external cavity semiconductor laser system.**

**Albers et al (5,243,619) is cited for its teaching of a imaged rows of radiation sources.**

**Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Scott, Jr. whose telephone number is 703-308-4884. The examiner can normally be reached on Monday - Friday, 6:30am - 5:00pm.**

**If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul P. Ip can be reached on (703)308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-2864 for After Final communications.**

**Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.**

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**Leon Scott, Jr.**  
Primary Examiner  
**Primary Examiner**  
**Art Unit 2828**

**lsjr**  
**January 3, 2004**